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TimeLapse
HD Video Camera

TLC 200 f1.2
User Manual
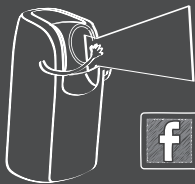
Length of battery usage

Time Interval	Capture Frames	Battery Life
ASAP	450000	2.5 Days
5 Seconds	300000	3.6 Days
10 Seconds	260000	17 Days
20 Seconds	210000	30 Days
30 Seconds	180000	48 Days
1 Minute	120000	62 Days
5 Minutes	34560	83 Days
10 Minutes	17280	120 Days
1 Hour	2880	
4 Hours	720	
24 Hours	120	

Brinno TimeLapse Camera TLC200 f1.2

Thank you for purchasing a Brinno TimeLapse Camera!

The Brinno TimeLapse Camera (TLC200 f1.2) uses unique Time Lapse and Power Saving technologies to capture images for days, weeks, or even months. The Brinno TimeLapse Camera TLC200 f1.2 captures photos and stores them as videos making them easy to view. Turn it on, set the time interval, frame your subject, let it run and you have a time lapse video! No fancy equipment, no intervalometer, no complicated gear setups, no time-controlling, no video-making headaches.

If you have any questions or problems setting up your Brinno TimeLapse Camera please contact the sales staff where you purchased our product or email us at Brinno Incorporated directly *customerservice@brinno.com*
Please Visit our website *www.brinno.com*

Time Lapse Camera TLC200 f1.2 Features

Large Aperture
Better low light recording and sharper images.

Wide Angle View
140°Field of View.
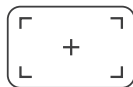A wider area to be recorded creating panoramic images

Time Lapse Video
TLC200 f1.2 provides you a 1280x720 resolution video, yes, it's HD video.

Power Saving
Unique Power Control, means 4 AA batteries can capture 300,000 frames.

LCD Viewfinder
The 1.44" LCD screen, allows you to easily frame your subject.

Rotatable Lens
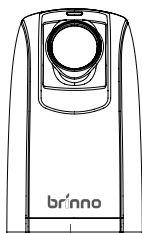Provides greater flexibility in targeting your subject!

TLC200 f1.2 Output file format

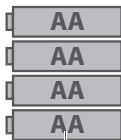- [Video Mode] **Format** AVI. **Resolution** 1280x 720, 640x 480
  Note: The maximum size of each single AVI file ranges between 8,192 to 20,480 frames, depending on the time interval setting.
- Still Image Mode] **Format** JPEG. **Resolution** 1280x 720, 640x 480

Package Contents

1 TimeLapseCam (TLC200 f1.2) **2** 4 AA Batteries **3** SD card*

* SD Card may or may not be included, please check the contents list on the package .

Parts of the Camera

Front

Back

1 SD Card Cover
2 Connector for Extension
  Accessories
  (For ATS100, ATM100)
3 Connector for Micro USB cable
  (For extension power supplier, DC 5V)

4 Metal Ring
  (for ATM100, ATL045)
5 Battery Door
6 Strap Eyelet
7 LCD Screen
8 MENU (◄) Button

9 TIME (►) Button
10 OK/ START Button
11 Power Switch
12 LED Indicator
13 Tripod Screw Hole

Display Icons

Set Up screen

Normal ▯▯▯▯

ASAP

OK

2011/08/31
22:58:32

Preview screen

1280x720

READY

BATTERY
EMPTY

SD
FULL

SD
ERROR

SD
NO CARD
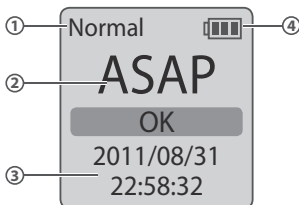
At Set Up screen

1 Capture mode
   Normal: Time Lapse mode
   Shutter: Shutter Line mode
   Motion: Motion Activated mode
2 Time interval
   Select the pre-set time interval or
   customize yourself.
3 System date and time
4 Battery level

| Icon	Description
▯▯▯ (green)	Battery fully charged.
▯▯ (green)	Battery partially discharged.
▯ (yellow)	Low battery. Replace as soon as possible.
▯ (red)	Out of battery. Replace battery immediately.

At Preview screen

5 Video/ Image resolution
6 Preview image capture window

Status icon

7 Battery Empty
   Please replace battery imediately.
8 SD Card Full
   Please download files to clear SD card space.
9 SD Card Error
   Please replace SD card.
10 No Card
   Please Insert SD card.

⚠ *About Power Saving*

Set up screen

```
Normal    ▭
ASAP
  OK
2011/08/31
22:58:32
```
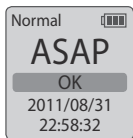
10 sec. →

Preview screen

```
1280x720


READY
```

20 sec. →

Turn off LCD

1 **At Set Up Screen**
After *10* seconds without activity on the set up screen, the camera will go to Preview screen automatically. You can press the *MENU* or *TIME* button to go back to the set up screen.

2 **At Preview Screen**
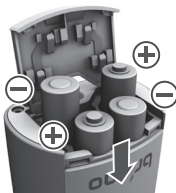After *20* seconds without activity on the set up or preview screen, the LCD screen will turn off automatically to save power. You can press the *OK* button to wake up camera.

Initial Step-1 *Install Batteries and SD Card*

1

2

3

1 Open battery door.
2 Insert 4 AA batteries.
3 Close battery door.

⚠**Be sure the battery cover is locked into place.**

1   **2**   **3**
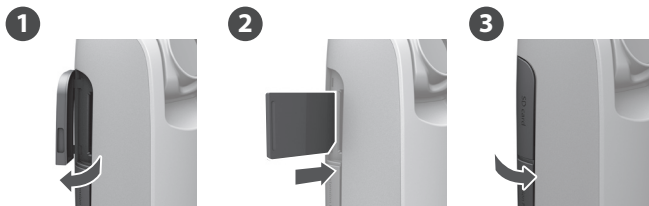
1 Open SD card cover.
2 Insert SD card until it clicks into place.
3 Close SD card cover.

1   **2**   **3**

OK
START
on

SD
READING..

Normal
ASAP
OK
2011/08/31
22:58:32
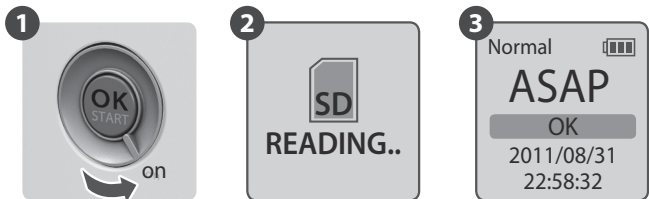
1 Rotate the **Power** switch to **ON** position.
2 Process screen
  ⚠ **It may display other information on screen, please refer to page 3.**
3 Set Up screen
  Now, you can set Date and Time and Time Interval before you use your TimeLapse Camera!

Initial Step-4   *Set Date and Time*

1 Press **MENU** button.

2 Press **TIME** (▶) to select **Set Date & Time (MENU 5/10),** and press **OK.**

3 At the highlight field, press **MENU** (—) to decrease value, press **TIME** (+) to increase value, press **OK** to confirm and go to the next field. When finished press **OK** to exit set up.
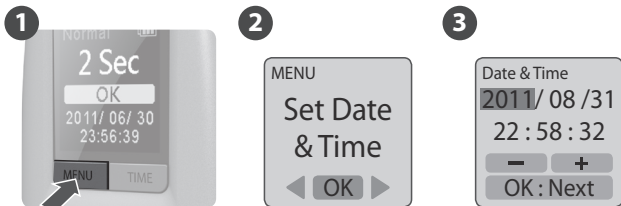
Initial Step-5   *Set Time Interval*
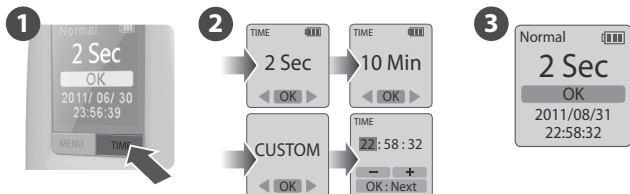
1 Press **TIME** button to enter time interval set up.

2 Press MENU (◀) and TIME (▶) to select a pre-set time interval or customize it by yourself. When complete, press the OK Button to confirm and return to the Set up screen. (ASAP option: everysecond can capture 2 photos)

3 Now you are back to the Set up screen
Now, you are ready to go to Preview screen and start recording your Time Lapse Videos.

Start Recording

1 Set up screen

Normal

ASAP

OK

2011/08/31
22:58:32

2

3 Preview screen

1280x720

READY

OK

Turn off LCD
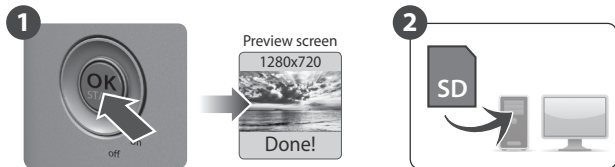
Recording!

1 Turn on TLC200 f1.2, set time interval and press OK to **Preview Screen**.

2 Adjust lens angle to frame subject.

3 At Preview screen, press OK button to start recording, during recording period the LCD panel will turn off to save power.

Stop Recording

1

OK

off

Preview screen

1280x720

Done!

2

SD

1 While recording, hold the **OK** button until the LCD lights on and shows the **Preview Screen**, it will display text "**Done!**". This indicates the recording session is over.

2 Remove the SD card from the camera, and plug it into your computer or notebook to enjoy your amazing Time Lapse Videos!

LED Indicator

Green LED light: indicates Image capture in process
When the Green LED flashes, the Time Lapse Camera (TLC200 f1.2) is capturing photos.

Red LED light: Low battery level, Low recording space on your SD card

AVI Playback Frame Rate

You can change the videos FPS (frames per second) playback with this setting.

1

MENU

AVI Frame
Rate

◀ OK ▶

2

Frame Rate

10 FPS

◀ OK ▶

10 FPS (Frames Per Second) means:
10 frames are played in 1 second.

1 Select **AVI Frame Rate**.

2 What frame rate should I use?

Generally, use 10 FPS is suitable for Time Lapse video.

1 FPS: The video plays 1 frame per second, so the video will look not smooth, and the video length will be longer.

30 FPS: The video plays 30 frames per second, so the video will look smooth, and the video length will be shorter.

Image Quality

Set the image quality for your camera.

1

Image
Quality

Best

◀ OK ▶

2

Image
Quality

Better

◀ OK ▶

3

Image
Quality

Good

◀ OK ▶

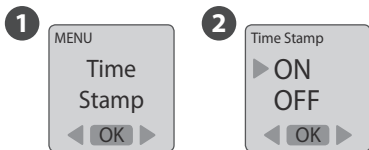*1* Select **Image Quality**

2 There are three options you can select: **Best, Better, Good**

Time Stamp

You can choose if you want to show the time stamp at bottom of your video.

1
```
MENU
Time
Stamp
◄ OK ►
```

2
```
Time Stamp
► ON
  OFF
◄ OK ►
```

1 Select **Time Stamp**.
2 Select ON or OFF.

Low Light Recording

You can choose to enable your camera to keep recording video in a low light environment (< 5 Lux).

1
```
MENU
Low Light
Recording
◄ OK ►
```

2
```
Low Light
► ON
  OFF
◄ OK ►
```
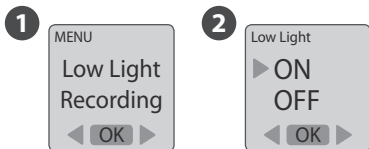
1 Select **Low Light Recording**.
2 ON: Allows your camera to record video in a low light environment.
   OFF: Your camera will go to **sleep** in a low light environment.

Set Date and Time

Set the correct date and time for your camera.

1
```
MENU
Set Date
& Time
◀ OK ▶
```

2
```
Date & Time
2011/ 08 /31
22 : 58 : 32
 —      + 
OK : Next
```

1 Select **Set Date & Time**.

2 At the highlight field, press **MENU** (—) to decrease the value, press **TIME** (+) to increase the value, press OK to confirm and go to the next field. When finished, press OK to exit set up.

Output Resolution

You can change video resolution with this setting.
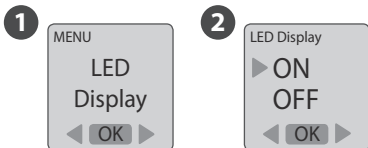
1
```
MENU
Output
Resolution
◀ OK ▶
```

2
```
Resolution
1280x720
◀ OK ▶
```
```
Resolution
640x480
◀ OK ▶
```

1 Select **Output Resolution**.

2 There are two options you can select: **1280x720**, **640x480**.

LED Display

You can choose if the LED indicator will flash while capturing each frame, or not flash at all.

1
```
MENU

LED
Display
◄ OK ►
```

2
```
LED Display
► ON
  OFF
◄ OK ►
```

1 Select **LED Display**.

2 ON: When the camera is capturing a frame, the LED indicator will flash once.

OFF: During capture period the LED indicator will not flash .

Band Filter

Select the correct fluorescent lighting frequency to match your indoor lighting frequency.

1
```
MENU

Band
Filter
◄ OK ►
```

2
```
Band Filter
► None
  50 Hz
  60Hz
◄ OK ►
```
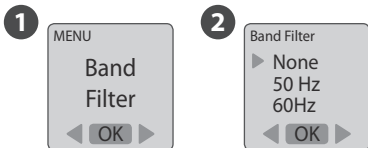
1 Select **Band Filter**.

2 **None**: For outdoor environment.

50 Hz: USA

60 Hz: Europe

Firmware Version
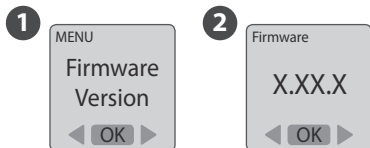
Display the current firmware version of camera.

1
MENU

Firmware
Version

◀ OK ▶

2
Firmware

X.XX.X

◀ OK ▶

1 Select **Firmware Version**.

2 Display the firmware version for 30 seconds, or press the OK button to exit.

Reset

You can reset your camera back to the default setting.

1
MENU

RESET

◀ OK ▶

2
Reset

▶ NO
   YES

◀ OK ▶

Select **Reset**.

Select **YES** and press the OK button to reset your camera.

Default Settings:

Function	Setting
AVI Frame Rate	**10 FPS**
Image Quality	**Better**
Time Stamp	**ON**
Low Light Recording	**ON**
Output Resolution	**1280x720**
LED Display	**ON**
Band Filter	**None**
Time Interval	**2 Seconds**

Accessories

Time Lapse Camera

MAGNET MOUNT CONVERSION LENS
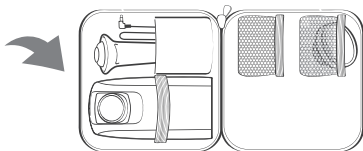## *-0.45 WIDE-ANGLE-*

Before

After

Enlarge your vision with Wide-Angle Lens!

Capture the changes of magnificent scenery, and discover the city in a different way. You will capture an entirely new scene when you add the wide angle lens!

Easy way to secure your Time Lapse Camera and accessories.

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SHUTTER LINE for **Time Lapse Camera**
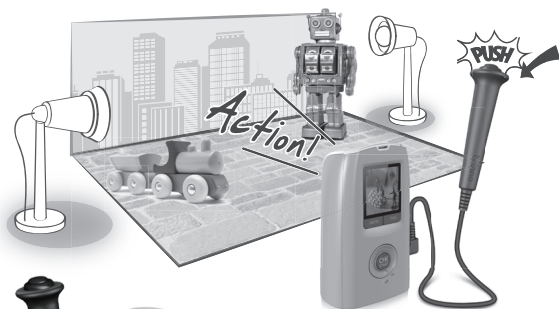
EASY to CREAT
STOP MOTION VIDEO!

In the past, in order to create stop motion video, you will need Hi-end equipment and lots of time to edit thousands photos. But now, the Brinno TLC200 f1.2 and shutter line will help you save time and make it easy to make a stop motion video!

Accessories **Motion Sensor** *(ATM100)*

the Movement   Detecting   Activated & Record

Motion Detected

- **Waterproof:** IP54
- **Detect Angle:** 90°
- **Detect Distance:** 4 meters

Perfect for HOME & PROPERTY SECURITY!

Adding the Motion Sensor (ATM100) to Time Lapse camera (TLC200 f1.2), will allow the camera to detect any movement and wake up and take pictures automatically. It can take thousands of photos and convert them into a video, making them easy to review.

Accessories **Weather Resistant Housing** *(ATH100)*

For Outdoor Use   ■ **Waterproof:** IP54

Whether it is Natures Beauty, Plant Growth or a Construction Project

The Weather Resistant Housing (ATH100) allows the Time Lapse Camera (TLC200 f1.2) to function safely outdoors in any weather. Your Time Lapse Camera(TLC200 f1.2) will be protected against severe weather, so you can keep recording images in any season or location.

Specifications

Camera

Model	TLC200 f1.2
LCD Screen	1.44" TFT LCD
Rotate Lens	120°
Waterproof	Optional, (In use with Weather Resistant Housing (ATH100))

Capture Mode

Time Lapse	Auto generate Time Lapse video
Stop Motion	Optional, (In use with Shutter Line (ATS100))
Motion Activated	Optional, (In use with Motion Sensor (ATM100))

Optics Lens

Aperture	F1.2
Lens type	Aspherical Lens
Field of View	140°
Focal Length	18 mm (35mm equivalent)
Focus Distance	30 cm (Minimum)

Recording

Time Lapse Video	Format: AVI
	Resolution: 1280x 720, 640x 480
Still Image	Format: JPEG (only for using Shutter Line)
	Resolution: 1280x 720, 640x 480
Memory Storage	SD Card (Supported up to 32 GB)

Time Interval

ASAP	0.5 ~ 1 second
Custom	From 1 second to 24 hours

Power

Power source	Battery: 4 AA Batteries
	DC IN: 5V (Micro USB connector)
Battery Life	3.6 Days, at 1 second time interval, captures 310,000 frames
	120 Days, at 24 hours time interval, captures 120 frames

Dimension

Size (DxWxH)	64x 46x 106 mm
Weight	120 g (without batteries)
Color	Green/ Black

Package Contents

TimeLapse Camera (TLC200 f1.2)	1	**4GB SD card***	1
AA Battery	4	**User Manual**	1

* SD Card may or may not be included, please check the contents list on the package.

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